

## 2016 Children's Safe Products - Reporting Rule update

### Draft Chemical Evaluation

CAS 84-61-7

Substance Name Dicyclohexyl phthalate (DCHP)

#### Historical summary

In 2011, Dicyclohexyl phthalate (DCHP) was not included in the original Children's Safe Products Act (CSPA) reporting list, because we did not find evidence for its presence in children's products or people [1]. However, DCHP was found to be present in other consumer products [1].

The Washington Toxics Coalition petition asserted DCHP is found in household dust and indoor air, as well as in children's products, such as modeling clay and pajamas [2]. We verified the detections in household dust and indoor air with data provided by the European Chemicals Agency [3]. However, we were not able to verify DCHP presence specifically in children's products.

#### Toxicity

In 2011, we identified DCHP as an endocrine disruptor, based on the EU Category 1 for endocrine disruption determination [4]. No new information has been found to change this finding. The EU developed their priority list of endocrine disruptors in stages (2000, 2002, and 2007), grouping chemicals into three categories. We have used Category 1 as an authoritative source, because Category 1 requires evidence of endocrine disrupting activity in at least one species using intact animals. Category 2 requires at least some *in vitro* evidence but is considered insufficient evidence of endocrine activity, while Category 3 indicates either no evidence of endocrine disrupting activity or no data available.

Since 2011, DCHP was included in the Chronic Hazard Advisory Panel (CHAP) report [5], which described studies in rodents displaying adverse reproductive and developmental effects when exposed to DCHP. The Consumer Product Safety Improvement Act of 2008 (CPSIA) directed the U.S. Consumer Product Safety Commission (CPSC) to convene the CHAP "to study the effects of all phthalates and phthalate alternatives as used in children's toys and child care articles" [5]. The CHAP assessed the risks of fourteen phthalates and six phthalate alternatives, including three phthalates permanently banned by the CPSIA and three phthalates subject to an interim ban. The CHAP found the toxicological profile of DCHP to be very similar to other antiandrogenic phthalates, thereby concluding that exposure to DCHP contributes to the cumulative risk from other antiandrogenic phthalates and recommending to CPSC that DCHP be permanently banned from use in children's toys and child care articles at levels greater than 0.1%.

#### Exposure

There is new information on the presence of DCHP in indoor dust and air in several studies [3]. DCHP was also found in soap, perfume, modeling clay, and pajamas, but these products are not specifically noted as children's products [3].

#### References

1. Ecology, 2011, Process used to generate the CSPA reporting list. Available at the bottom of this webpage: <http://www.ecy.wa.gov/programs/hwtr/rtt/cspa/chcc.html>
2. Washington Toxics Coalition, Petition to Ecology for CSPA rulemaking. August 5, 2016.

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3. European Chemicals Agency (ECHA), Sweden and Denmark, 2015. Annex XV Report: Proposal for Identification of a Substance of Very High Concern on the Basis of the Criteria Set Out in REACH Article 57 Substance Name(s): Dicyclohexyl phthalate (DCHP) EC Number(s): 201-545-9 CAS Number(s): 84-61-7, <http://echa.europa.eu/documents/10162/b2fbb22c-72d7-491d-b417-39105e35b792>.
4. EU-Strategy for Endocrine Disruptors database EDS\_2003\_DHI2006.mdb. Accessed 10/17/16. [http://ec.europa.eu/environment/chemicals/endocrine/strategy/substances\\_en.htm](http://ec.europa.eu/environment/chemicals/endocrine/strategy/substances_en.htm)
5. Chronic Hazard Advisory Panel on Phthalates and Phthalate Alternatives (CHAP), July, 2014. Report to the U.S. Consumer Product Safety Commission Directorate for Health Services. <https://www.cpsc.gov/PageFiles/169876/CHAP-REPORT-FINAL.pdf>